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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/663,748

09/17/2003

Tsutomu Yamaguchi

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EXAMINER

QIN, JIANCHUN

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/663,748

Applicant(s)

YAMAGUCHI, TSUTOMU

Examiner

Jianchun Qin

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 8-10 is/are allowed.
6) ☒ Claim(s) 1,2,4,6 and 7 is/are rejected.
7) ☒ Claim(s) 3 and 5 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/07/2005 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumano et al. (5,824,928) in view of Yamagata et al. (5,066,842).

Regarding claim 1, Kumano et al. disclose a keyboard device comprising: keys (20, 30) each opening downward, and having side walls and a front wall (Figs. 1 and 2), and an abutment portion (the abutment portion shown in Fig. 1 above stopper 52 and the abutment portion shown in Fig. 2 above stopper 56) provided inside said walls, said abutment portion having a lower end located at approximately the same height as lower

ends of said side walls (Figs. 1 and 2), said keys each performing pivotal downward motion when depressed; and stoppers (52, 56) arranged under said keys in a manner associated therewith (Figs. 1 and 2), respectively, for abutment of said side walls and said abutment portion of an associated one of said keys thereagainst (Figs. 1 and 2).

The rest of the claim recites functions obviously disclosed by the reference.

Kumano et al. do not mention expressly: said abutment portion is formed inside of the front wall of said keys.

Yamagata et al. disclose a key top of the type utilized in keyboard, an teach means of reinforcing the key top, including said abutment portion (14, 15) formed inside of a front wall of said key top (col. 2, lines 29-35).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Yamagata et al. in the invention of Kumano et al. by forming ribs inside of the front wall of the keys, as taught by Yamagata et al., in order to reinforce the structure of the key at the portion where it abuts the stopper (Yamagata et al. Abstract).

Regarding claim 2, the teaching of Kumano et al. further includes: wherein said abutment portion is formed by at least one rib (the abutment portion above stopper 52 or the abutment portion above stopper 56).

Regarding claim 4, the teaching of Kumano et al. further includes: said keys are formed by synthetic resin molded articles in which each key is integrally molded with said rib (col. 4, lines 55-58).

Regarding claims 6 and 7, Kumano et al. teach the subject matter recited in claims 1 and 4. Kumano et al. do not mention expressly: said abutment portion is formed inside of the front wall of said keys; wherein said abutment is formed by a plurality of ribs.

Yamagata et al. disclose a key top of the type utilized in keyboard, and teach: means of reinforcing the key top, including said abutment portion (14, 15) formed inside of a front wall of said key top (col. 2, lines 29-35); wherein said abutment is formed by a plurality of ribs (14, 15).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Yamagata et al. in the invention of Kumano et al. by forming ribs inside of the front wall of the keys, as taught by Yamagata et al., in order to reinforce the structure of the key at the portion where it abuts the stopper (Yamagata et al. Abstract).

Allowable Subject Matter

4. Claims 3 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Claims 8-10 are allowed.

Reasons for Allowance

6. The following is an examiner's statement of reasons for allowance:

The primary reason for the allowance of claims 3, 5 and 8-10 is the inclusion of the limitation of: said rib is formed by a plate-shaped rib having a lower surface extending along a plane including lower end faces of said side walls and wherein the lower surface includes a largest surface area of the plate-shaped rib. It is this limitation found in each of the claims, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jianchun Qin whose telephone number is (571) 272-5981. The examiner can normally be reached on 8:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.


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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jianchun Qin
Examiner
Art Unit 2837

JQ 
January 31, 2006


MARLONT FLETCHER
PRIMARY EXAMINER